

**JOB DESCRIPTION**  
**MURFREESBORO WATER AND SEWER DEPARTMENT**  
**REHABILITATION TECHNICIAN**

**1. JOB TITLE:** REHABILITATION TECHNICIAN

**2. DEFINITION:** This is a technically-skilled position requiring computer, electrical repair and problem-solving skills, along with manual skills, in televising, gathering data, data entry, testing, repairing, construction and maintenance of wastewater collection systems. The Rehabilitation Technician reports to the Field Operations and Maintenance Superintendent. All employees are responsible to the Director and the City Manager. The position is classified as Non-Exempt for the purpose of the Fair Labor Standards Act, as having a possible occupational exposure to bloodborne pathogens. As Safety Sensitive, the employee is subject to pre-employment, reasonable suspicion, post accident, random, promotion and transfer, return to duty and follow-up drug and alcohol testing. The employee is subject to a pre-employment physical examination with a written statement from the physician as to the employee's ability to meet the physical strength and dexterity requirements of the position.

**3. EQUIPMENT / JOB LOCATION:**

- a. This position requires the use of Windows-based computer system, information management database, robotic camera/transporter system, atmospheric monitoring device, electronic/electrical testing and repair equipment, pneumatic system and tools, hand tools, power equipment, and vehicles requiring a Class A Commercial Driver's License.
- b. The job location is throughout the water distribution and wastewater collection systems. The employee will work primarily outdoors and may be exposed to inclement weather and in the proximity of biological, chemical, electrical and mechanical hazards. All City facilities and vehicles are smoke-free.

**4. ESSENTIAL FUNCTIONS OF THE JOB:**

- a. Leads and/or participates in the television inspection, visual inspection and monitoring, testing, construction, maintenance, and repair of the wastewater collection systems.
- b. Operates and maintains a Windows-based computer system and information management database, inspection system, and datalogging equipment.
- c. Creates, maintains, and accurately reads maps, plans, drawings, reports, and records, makes mathematical calculations with fractions, decimals, percentages, and the metric system.
- d. Using tools or with assistance, removes and replaces metal manhole covers weighing approximately 165 pounds, sets up and operates manhole entry tripod, safety harnesses, fall arrest devices, and retrieval equipment.
- e. Operates and calibrates atmospheric monitoring devices, confined space ventilation system, prepares confined space entry permits and reports, climbs in and out of manholes of various depths for inspection, repair, and installation of line plugging equipment.

- f. Lifts and puts into place a robotic camera/transporter and cables weighing approximately 100 pounds.
- g. Operates, maintains, and repairs television robotic camera transporting system, mobile TV inspection unit, camera gantry system, transporter cable electrical connection (Scotch Cast), cable reel assembly, hydraulic systems, and pneumatic systems.
- h. Operates electrical multimeter, soldering equipment, urethane welder, oxy/acetylene torch, power equipment, and various hand tools for the purpose of testing, diagnosing, and repairing the equipment used in the television inspection process.
- i. Operates and maintains electric AC/DC inverter power system for televising systems operations.
- j. Performs job duties while wearing all required and appropriate safety equipment.
- k. Sets up and maintains safety traffic controls around active work area.
- l. Sits, stands, lifts, stoops, and walks intermittently.
- m. Participates in occasional overtime outside of normal business hours.
- n. Maintains a clean and orderly work environment.
- o. Enters confined spaces under supervision, with approved entry permit and utilizing proper safety equipment.
- p. Must be able to perform job duties as described in the Essential Functions Addendum.

#### **5. ADDITIONAL EXAMPLES OF WORK TO BE PERFORMED:**

- a. Performs other duties and special projects as assigned.
- b. Participates in continuing education training.
- c. Operates other various power and hand tools including, but not limited to, air compressors, jackhammer, gasoline/diesel-powered pumps, sewer rodding equipment, pipe saws, boring machines, manual and power tapping machines.
- d. Performs heavy manual labor such as digging, lifting, and breaking pavement.
- e. Lays, cuts, and fits pipeline, installs manholes and mechanical valves for transmission of potable water and wastewater.

#### **6. REQUIRED KNOWLEDGE, SKILLS AND ABILITIES:**

- a. Must be a minimum of 21 years of age.
- b. Must possess a diploma or GED from an accredited school.
- c. Must have legal authorization to work in the United States.
- d. Must consent to and pass a pre-employment drug screening.
- e. Must have or be able to obtain a Class A Commercial Driver's License valid in the State of Tennessee within ninety (90) days of employment date, and must possess the ability to safely operate a motor vehicle.
- f. Ability to participate in stand-by duties, which involves working alone or with co-worker at night and on the weekend to resolve situations that occur after normal business hours.
- g. Must be able to comprehend both oral and written instructions and to communicate in English, both orally and in writing.
- h. Ability to perform mathematical calculations with fractions, decimals, percentages and the metric system.
- i. Ability to obtain Water Research Centre (WRC) and Pipeline Assessment Certification

Program (PACP) code certification within one year from date of employment.

- j. Ability to communicate with the public to maintain good relationships with customers.
- k. Ability to operate Windows-based computer system proficiently including an information management database, TV inspection system datalogger, video editing, downloading and uploading to system server.
- l. Ability to operate electrical multimeter, soldering iron, urethane welder, oxy/acetylene torch, with background in electric circuits (both AC and DC), testing, and repair.
- m. Ability to diagnose and repair a wide range of problems with mechanical equipment and components using various hand and power tools, both electric and pneumatic.
- n. Ability to operate atmospheric monitoring devices in confined spaces.
- o. Ability to work while wearing personal protective equipment such as a self-contained breathing apparatus, steel-toed shoes, rain gear, hard hats, goggles, etc.
- p. Ability to learn and comply with Departmental policies such as work rules and safety practices; to respond correctly to biological, chemical, electrical and mechanical hazards, asphyxiating, toxic and explosive gases, and vapors.
- q. Ability to read and comprehend drawings, plans and maps.
- r. Ability to complete TV logs and color code maps.
- s. Ability to perform tasks with minimum of supervision.
- t. Ability to lead, train and direct subordinates while acting as senior member of a work crew.
- u. Ability to establish and maintain effective working relationships with supervisors, co-workers and the public.
- v. Physical strength and dexterity requirements include the ability to:
  - 1. Insert and remove a 100-pound camera from manhole.
  - 2. Climb ladders and descend into manhole approximately 25 feet deep.
  - 3. Using tools or with assistance, remove and replace a manhole cover weighing approximately 165 pounds.
  - 4. Manipulate both large and small hand tools.
  - 5. The employee must be able to pass a pre-employment/post offer physical examination with a written statement from the physician as to the employee's ability to meet the physical strength and dexterity requirements of the position.
  - 6. Must be able to pass the physical abilities test/post offer screen for employment as described on the Essential Functions Addendum.
- w. Three years of experience in wastewater collection/sewage systems is preferred.
- x. Must possess a Collections II Operator license offered by the Tennessee Department of Environment and Conservation, or its successor, within 12 months of employment.
- y. Must be certified in CPR and First Aid within the first year of employment.
- z. Must be able to report for work on time and to perform the duties of the job for the complete day or shift.

Non-Exempt  
Safety Sensitive  
December 11, 2007

**ESSENTIAL FUNCTIONS ADDENDUM**  
**MURFREESBORO WATER AND SEWER DEPARTMENT**  
**REHABILITATION TECHNICIAN**

Employees in this area work 5 days a week, 8 hours a day with a 1-hour lunch break. The Rehabilitation Technician is responsible to the Field Operations and Maintenance Superintendent. This position requires technical and manual skills as well as heavy manual labor in the operation of construction equipment. This job requires, in addition to equipment operation, some digging, lifting and breaking of pavement under varying weather conditions while exposed to dampness, fumes, odors, dust, biological, electrical and mechanical traffic hazards.

Physical Demands

Rarely – suggests the employee is required to perform tasks less than 8 repetitions per hour, or less than 33% of the day.

Occasional – suggests the employee is required to perform tasks 8-15 repetitions per hour, or 33% of the workday.

Frequent – suggests the employee is required to perform tasks 16-32 repetitions per hour, or 34-65% of the workday.

Constant – suggests the employee is required to perform tasks 33 or more repetitions per hour, or 66% or higher of a workday.

<u>Lift</u>	<u>Occasional</u>	<u>Frequent</u>	<u>Constant</u>
<20#		X	
20-50#	X		
50-75#	X		
75-100#	X		
>100#	X		
Push/Pull			
<50#	X		
50-100#	X		
100-150#	X		
>150#	X		

Depending on the job duties for the day the operator may have to perform lifting, pushing or pulling on a more or less frequent basis. However, job duties may change throughout the week depending on the needs of the Water and Sewer Department.

Employees are able to get help with lifting heavy objects and are encouraged to if an object weighs over 100#.

Bending/Squatting/Kneeling/Twisting – Is required constantly throughout the day repairing and constructing water collection systems. The operator also works in confined spaces, which requires the employee to work in very tight conditions.

Pushing/Pulling – Is required constantly while working on a job that requires the manipulation of rods, pipes or wiring. Is required occasionally manipulating valves, fire hydrants, manhole covers, copper rolls, and other material used in the repairing and constructing of water collection systems.

Lifting/Carrying – Is required constantly in lifting hand tools. Performed occasionally lifting valves, rods, pipes, wiring, jackhammers, pavement breakers, shovels, wrenches, spider lids, copper rolls, and other material used in the repairing and constructing of water collection systems. The following items were weighed and can be lifted, carried, pushed, pulled or manipulated in a fashion using all 4 components:

<u>Item</u>	<u>Weight</u>
Spider lid	160#
Manhole cover	90-145#
PVC pipe (13 ½ feet)	62#
Fire hydrant	400# (handled with electrically driven hoist or fork lift)
One inch copper tubing (100 feet)	85#
6 inch gate water valve	145#
Tapping sleeve	145#
Water pump	120#
Reducer	25#
Jack hammer	
(6 foot steel rod)	100#
Pavement breaker	80#
Cut off saw	32#
TV camera	48#

The jackhammer and pavement breaker were weighed as above, however, this does not account for friction force that is caused when breaking up pavement or when it may jam in the pavement.

Standing/Walking – Is required constantly throughout the day.

Sitting – Is performed while driving to the location for the job, or on breaks.

Reaching – Is required constantly manipulating hand tools, valves, pipes, rods, and using other materials used in the repairing or constructing of the water collection systems.

Manual Dexterity/Gripping – Performed constantly.

Fine Motor Control – Is required frequently while screwing valves or using small hand tools.

Climbing ladders – Required frequently ascending/descending ladders in manholes that can be up to 25 feet deep.

Overhead activity – Required occasionally when lifting items overhead such as a jackhammer, piping, and wiring.

Tools Handled:

Shovel  
Jackhammers  
Pipe saw  
Tapping machine  
Spade  
Pipe Wrench  
Pavement breaker  
Rock drill  
Road saw  
Air ratchet  
Hand ratchet  
Hammer  
Wrenches  
Rake  
Pipe cutters  
Screw Driver  
Chain  
Sewer rope  
Manhole hook  
Probing Rod  
Metal detector  
Tape measure  
Sledge hammer

Work Conditions

*Exposed to:*

Hot temperatures  
Cold temperatures  
Sudden changes in temperatures  
Noise  
Slippery Surfaces  
Tight work spaces  
High elevations  
Rain  
Snow

*Need physical ability for:*

Squatting

Bending/Crouching

Stooping

Hand gripping

Fine motor control

Hand/Eye coordination

Pushing/Pulling

Lifting/Carrying

Reaching

Overhead activity

Climbing

Balancing

Foot control

Driving a truck

Driving heavy equipment

Driving a tow motor

Addendum

December 11, 2007